

**STATE WATER RESOURCES CONTROL BOARD
BOARD MEETING SESSION – DIVISION OF FINANCIAL ASSISTANCE
MARCH 20, 2007**

ITEM 5

SUBJECT

CONSIDERATION OF AUTHORIZATION TO ALLOCATE \$1,605,000 FROM THE CLEANUP AND ABATEMENT ACCOUNT (CAA) TO THE LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD (LAHONTAN REGIONAL WATER BOARD) FOR WORK AT LEVIATHAN MINE

DISCUSSION

Leviathan Mine (Mine) is an inactive sulfur mine that the State of California purchased in 1984 to pursue cleanup and abatement of water quality problems caused by historic mining. Jurisdiction over the Mine rests with the State Water Resources Control Board (State Water Board), which, in turn has delegated jurisdiction to the Lahontan Regional Water Board. The Mine is located in Alpine County, approximately five miles east of Markleeville, California. Degradation of water quality in Leviathan and Aspen creeks occurs as a result of the discharge of acid mine drainage (AMD) from the Mine. AMD from the Mine can be characterized as a dilute sulfuric acid solution having a pH of approximately 2.5 and containing elevated concentrations of dissolved metals, including iron, aluminum, arsenic, nickel, and copper.

In May 2000, the United States Environmental Protection Agency (USEPA) placed the Mine on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List, thus making Leviathan Mine a federal Superfund site. USEPA has identified the State as a Potentially Responsible Party and has issued an Administrative Abatement Action (AAA) to the State. The AAA requires the implementation of certain pollution abatement and site characterization activities at the Mine, including preventing the overflow of AMD from the storage ponds.

In 1985, on the State's behalf, the Lahontan Regional Water Board completed construction of a pollution abatement system at Leviathan Mine to address specific problem areas. The 1985 project included construction of five lined ponds to capture and evaporate AMD. The primary sources of AMD to the ponds are the Adit and the Pit Under-Drain (PUD), both of which flow year-round. Given the limited usable area at the Mine site, the evaporation ponds could not be sized to provide 100 percent containment of influent flows (consisting of AMD from the Adit and PUD, and direct rain/snow onto the ponds); consequently, the ponds periodically overflowed and discharged to Leviathan Creek.

In order to prevent pond overflows, in 1999, the Lahontan Water Board implemented a process to treat and discharge treated pond water during the summer months, as a means to increase pond holding capacity for the subsequent winter and spring months. The treated water is discharged to Leviathan Creek and the sludge generated from the precipitated metals is disposed of in an appropriate landfill. Discharges of treated water must comply with discharge criteria set by USEPA. Contractors for the Lahontan Regional Water Board have successfully operated the treatment system during the 1999 through 2006 field seasons.

This request is for a total of \$1.605 million to complete three activities during the 2007-2008 timeframe:

1.) Request for \$538,000 to complete deferred construction

The access road to the facility needs to be improved to provide safe access during all weather conditions. In addition, the 23-year-old treatment facility has deteriorated and needs maintenance and improvements. During recent years, the General Fund allocation for this work has been diverted to AMD treatment. It is estimated that \$538,000 is required for this work.

2.) Request for \$567,000 for summer 2007 pond water treatment

The last two years of above average precipitation resulted in the need for additional treatment to prevent the discharge of untreated AMD to Leviathan Creek. This higher-than-normal volume of AMD generated significantly more sludge that must be disposed of during the early summer of 2007. An additional \$567,000 is needed for the increased sludge removal and disposal costs and to treat the volume of AMD anticipated for the summer of 2007 (i.e., 12 million gallons of AMD are anticipated instead of the 4 million gallons budgeted).

3.) Request for \$500,000 for 2008 spring pond water treatment

Untreated AMD mixed with snowmelt and rainwater stored in the pond system overflowed the ponds and entered Leviathan Creek during a 24-hour period in April 2006. Although impairment to Leviathan Creek water quality was negligible, Lahontan Regional Water Board staff endeavor to prevent any untreated overflow in the future. To prevent untreated overflow during spring snowmelt, additional funding is required to contract for specialized treatment equipment that can mobilize to the site over snow and can operate during the springtime cold weather conditions. Funding for 2007 spring treatment has been acquired. This proposed resolution requests \$500,000 for 2008 spring treatment. The specialized nature of the treatment system requires a non-standard "Request-For-Proposal" procedure that takes significantly longer to process. Consequently, staff seeks authorization for the funds now to allow having services in place for the anticipated 2008 spring treatment operation.

POLICY ISSUES

Should the State Water Board approve \$1,605,000 for access road and treatment system improvement, and summer 2007 and spring 2008 pond water treatment at Leviathan Mine?

FISCAL IMPACT

The CAA has an uncommitted balance of \$4,800,000. Approving \$1,605,000 for this project will leave an uncommitted balance of \$3,200,000 in the CAA.

REGIONAL BOARD IMPACT:

This item has the support of the Lahontan Regional Water Board.

STAFF RECOMMENDATION

The Division of Financial Assistance recommends that the State Water Board approve the Lahontan Regional Water Board request for \$1,605,000 from the CAA for the access road, treatment system improvements, and summer 2007 and spring 2008 pond water treatment at Leviathan Mine.

**STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2007 -**

AUTHORIZATION TO ALLOCATE \$1,605,000 FROM THE CLEANUP AND
ABATEMENT ACCOUNT (CAA) TO THE LAHONTAN REGIONAL WATER QUALITY
CONTROL BOARD (LAHONTAN REGIONAL WATER BOARD) FOR WORK AT
LEVIATHAN MINE (MINE)

WHEREAS:

1. The Mine is an abandoned sulfur mine on property owned by the State of California;
2. Historic mining activities have caused pollution problems, primarily from acid mine drainage (AMD) generated at the site, causing adverse water quality impacts in the Mine watershed;
3. An Administrative Abatement Action issued by the United States Environmental Protection Agency requires the Lahontan Regional Water Board to prevent pond water containing AMD to overflow at the Mine;
4. Since 1987, the CAA has paid for various activities at the Mine to reduce or eliminate pollution;
5. Two years of increased winter precipitation and AMD flows have created significantly more AMD needing treatment than the Lahontan Regional Water Board is funded for;
6. Untreated and uncontrolled discharge of AMD from the ponds will harm aquatic life and create a human health hazard in Leviathan Creek and waters downstream;
7. The Lahontan Regional Water Board is currently funded \$297,670 from the General Fund for AMD treatment, which will treat approximately 4 million gallons of AMD;
8. The access road to the facility needs to be improved to provide safe access during all weather conditions and maintenance of the aging treatment system is required. The cost of this work is estimated to be \$538,000;
9. The funds allocated to treat AMD in the upcoming summer 2007 season are not adequate;
10. The Lahontan Regional Water Board needs an additional \$567,000 to treat the volume of AMD anticipated for summer 2007;
11. In addition to summer treatment, the Lahontan Regional Water Board anticipates needing to conduct spring pond water treatment in spring 2008 to prevent pond overflow;
12. An additional \$500,000 is needed to initiate the request-for-proposal contracting process for 2008 spring treatment;

13. Water Code section 13442 provides that upon application by a public agency with authority to clean up a waste or abate the effects of the waste, the State Water Resources Control Board may order monies to be paid from the CAA to assist that public agency in cleaning up the waste or abating the effects of the waste on the waters of the state; and
14. The Lahontan Regional Water Board does not have budgeted funds to conduct the needed treatment and health and safety improvements.

THEREFORE BE IT RESOLVED THAT:

The State Water Resources Control Board approves \$1,605,000 from the CAA for the Lahontan Regional Water Board to complete improvements to the access road, treatment system, and summer 2007 and spring 2008 pond water treatment at Leviathan Mine.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on March 20, 2007.

Song Her
Clerk to the Board